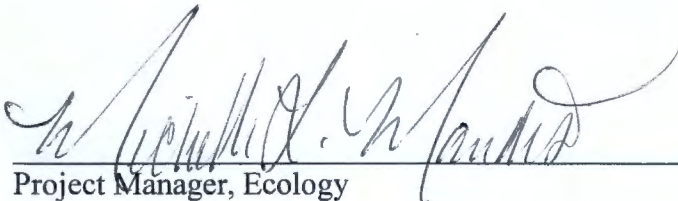


Meeting Minutes Transmittal

LIQUID PROCESSING AND CAPSULE STORAGE
Project Managers Meeting
825 Jadwin/Room 590A
Hanford, Washington
January 18, 2007

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Project Managers Meeting. Signatures denote concurrence with content only and are not intended to imply agreement to any commitments.



 Project Manager, Ecology

Date: 2/22/07



 Project Manager Representative, RL

Date: 2/22/2007



 Project Manager Representative, FH

Date: 2/22/07

<p>5-2-8 T-2-8</p>	<p>200 LPCS Administrative Record OM Holgado DG Singleton KA Conaway</p>	<p>H6-08 A6-39 H0-57 H0-57</p>
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RECEIVED
 FEB 28 2007

EDMC

**LIQUID PROCESSING AND CAPSULE STORAGE
PROJECT MEETING
825 Jadwin/Room 590A
Hanford, Washington
January 18, 2007**

10:45 a.m. to 11:15 a.m.

Agenda

- I. Approval of November 16, 2006 Liquid Processing and Capsule Storage Project Meeting Minutes (Ecology/DOE-RL/FH)
- II. Operational Status
- III. Project Specific Issues
 - A. Status of RCRA Permit Revisions
 - B. 310/340 Status
 - C. ST4502 Permit Status
 - D. ST4500 Permit Status
 - E. LERF
- IV. General Discussions
- V. Status of Actions
- VI. New Action Items
- VII. Documents for Submittal to the Administrative Record
- VIII. Next Project Managers Meeting

LIQUID PROCESSING AND CAPSULE STORAGE
PROJECT MEETING MINUTES
Project Managers Meeting
825 Jadwin/Room 590A
Hanford, Washington

January 18, 2007

- I. Approval of November 16, 2006 Liquid Processing and Capsule Storage Project Meeting Minutes (Ecology/DOE-RL/FH). The PMM minutes were approved.
- II. Operational Status (Fen Simmons FH)
- LIQUID EFFLUENT RETENTION FACILITY (LERF)
Waste Inventory (1/02/07)
- Basin 42 - Liquid Level: 9.3 ft or 2.1 Mgal
 - Basin 43 - Liquid Level: 9.5 ft or 2.2 Mgal
 - Basin 44 - Liquid Level: 14.7 ft or 4.1 Mgal
- Received 53 tanker shipments during December:
- Basin 42 received 49,000 gallons leachate from the mixed waste burial trenches
 - Purgewater tank received 23,500 gallons purgewater in 47 tankers
- EFFLUENT TREATMENT FACILITY (ETF)
Completed Basin 44 campaign (CERCLA) and started outage for Thin Film Dryer rotor replacement
- 200 AREA TREATED EFFLUENT DISPOSAL FACILITY (TEDF)
- Receiving wastewater at 73 gpm
- 300 AREA TREATED EFFLUENT DISPOSAL FACILITY (310 TEDF)
- Operating normally
- 340 COMPLEX
- Nothing to report
- III. Project Specific Issues
- A. Status of RCRA Permit Revisions
1. Fen Simmons (FH) reported that a Revision 1A permit modification is being prepared.
- B. 310/340 Status
1. There was no change in status to report.
- C. ST4502 Permit Status
1. Kathy Conaway (Ecology) stated that Michelle Mandis (Ecology) is continuing preparation of the updated fact sheet after an extended sick leave.
- D. ST4500 Permit Status
1. An updated fact sheet is being prepared by Ecology.

E. LERF

1. Ms. Conaway stated that FH incorporated changes to the draft permit conditions, which are now with Ecology. Until the groundwater issues in the sitewide permit are resolved, the unit specific permits that contain a groundwater portion are on hold.

IV. General Discussions

1. Ms. Conaway presented two questions to Mr. Simmons from Ms. Mandis: 1) will the regeneration of the ion exchange columns modify the wastewater treatment system in any way; 2) is FH applying WAC 173-303 or WAC 173-216. Ms. Conaway will follow up with an e-mail of the questions.

V. Status of Actions (report attached)

- A. 1129 - Finalization of the permit conditions is pending the sitewide groundwater permit issues.
- B. 1585 - The design report for the Solidification Treatment Unit was provided to Ecology December 13 2006. This action is closed.

VI. New Action Items

- A. There were no new action items.

VII. Documents for submittal to the Administrative Record

- A. The Technical Memo for the new Solidification Treatment Unit (STU).

VIII. Next Project Managers Meeting

- A. The next PMM was scheduled for February 22, 2007.

Environmental Request Information System

Task Status Report

Group by Facility

Filtered on: Status = Open; Category = PMM

Liquids Processing & Capsule Storage

Task ID: 1129 Finalize LERF permit conditions for Ecology approval.
Waste Stabilization and Disposition/Liquids Processing & Capsule Storage

Task Lead: Hildebrand, Doug
POC: Szelmezcza, Roger

Classification: Open
Category: PMM

	Project	DOE	Agency
Due:	N/A	N/A	N/A
Complete:	N/A	N/A	N/A
Closed Date:			

Description: Finalize LERF permit conditions for Ecology approval.

Date	Status
1/18/2007	Finalization of the permit conditions is pending the sitewide groundwater permit issues.
11/16/2006	A meeting will be held December 5 to discuss the LERF groundwater evaluation planned permitting conditions. Information will be provided to Ecology November 28.
10/26/2006	Ecology transmitted information requested by RL and the contractors, and provided comments. RL and contractors will provide feedback to Ecology November 6, 2006.
9/28/2006	A meeting was held on September 20, 2006 to discuss LERF permit conditions. Ecology is preparing to transmit information that PNNL and RL/FH requested regarding LERF permit conditions.
8/24/2006	Tony Miskho will schedule a meeting for the first week in September 2006.
7/27/2006	The parties met on July 26, 2006. RL will provide comments to Ecology on the evaluation plan permit conditions.
6/22/2006	Ecology transmitted the draft permit conditions to RL/FH on May 18, 2006.
4/27/2006	Ms. Conaway completed the permit conditions in February 2006. The permit conditions remain with Ecology and have not been transmitted to RL.
2/23/2006	LERF permit conditions have been drafted by Ecology and will be transmitted to RL once they are finalized. The time frame was estimated to be two weeks.
1/26/2006	Ecology will provide the permit conditions in February 2006.
10/27/2005	Ecology is finalizing the permit language for its hydrogeology review.
9/22/2005	Ecology is still reviewing the permit conditions.
8/25/2005	Ecology is still reviewing the permit conditions.
7/28/2005	Ecology is still reviewing the permit conditions.
6/29/2005	A meeting will be scheduled after Ecology sends the draft permit conditions to RL.
5/26/2005	A meeting will be scheduled after Ecology sends the draft permit conditions to RL.
3/23/2005	RL will schedule the meeting for April 12, 2005.
2/23/2005	The meeting with Ecology was not held as previously reported. The topic of the discussion will be to explore the monitoring requirements for LERF. An internal meeting with the Ecology groundwater group is scheduled for 3/17. A meeting with FH and RL will be scheduled after this meeting is held.
1/27/2005	A meeting was held January 6, 2005.
12/16/2004	A meeting is tentatively scheduled for January 6, 2005.
10/28/2004	Task opened.

2/21/2007; 8:12:12 AM

Design Report for the
Solidification Treatment Unit

1.0 INTRODUCTION

1.1 Objective of the New Unit

The STU will treat and solidify concentrate from the existing ETF evaporator by mixing the concentrate with dry, cementitious raw materials (e.g., Portland cement, fly ash, blast furnace slag, and/or lime).

The waste concentrate will be cooled, using a concentrate cooler for optimal processing. The cooled concentrate would be stored and pH adjusted in the existing concentrate tanks before being processed. The waste concentrate will be metered as it is fed to the grout mixer using concentrate circulation pumps. The aforementioned raw materials would be stored in separate silos located outside of, but adjacent to, the ETF. The raw materials will be individually weighed in weigh hoppers underneath the silos, then sequentially vacuum-transferred into a feed hopper (vacuum filter/receiver) located above the grout mixer, using a vacuum conveyance system. The feed hopper separates the air from the solids. After all ingredients are transferred into the feed hopper, they would be gravity-fed into the grout mixer through a rotary feeder.

The ingredients will be thoroughly mixed in the mixer until the mixture becomes homogenous. Once mixing is completed, the grouted waste would be emptied from the mixer by gravity into a waste containment bag supported in a loading cart located directly below the grout mixer. Once the mixer is empty, the loading cart containing the solidified waste containment bag would be removed from the loading area and staged to allow the grouted waste to set. Once the grouted waste has set, the solidification waste containment bag will be sealed and removed from the loading cart, then cleaned surveyed, and weighed before it is transported on pallets, using a forklift, to an outside waste storage area for curing, awaiting shipment to final disposal on the Hanford Site. The loading carts will be reused.

1.2 Description of Current Plant Operation (Thin Film Dryer)

The Evaporator brine is pumped to the thin film dryer that is heated by steam. As the evaporator brine flows down the length of the dryer, the waste is dried. The dried film, or powder, is scraped off the dryer cylinder by blades attached to a rotating shaft. The powder is funneled through a cone shaped powder hopper at the bottom of the dryer and into the container handling system.

A 55-gallon drum is raised underneath the dryer funnel. The container is sealed to the dryer and a rotary valve begins the transfer of powder to the empty drum. The drum is filled to a predetermined level, capped, and moved along a conveyor to the station air lock. The container is moved onto the conveyer by remote control. The drums are labeled, placed on pallets, and moved by forklift to the drum handling room where they are storage until final disposal on the Hanford Site.

Overhead vapor released by the drying of the evaporator brine is condensed in the distillate condenser. Excess heat is removed from the distillate by a water cooled heat exchanger. Part of the distillate is circulated back to the condenser spray nozzles. The remaining distillate is pumped to the head end of the main treatment train for processing.

1.3 Current Solid Waste Requirements

Solid waste generated at the ETF must meet the disposal site acceptance criteria. This criteria is documented in HNF-EP-0063, Rev. 12, *Hanford Site Solid Waste Acceptance Criteria*, and BHI-00139, Rev. 4, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*.

1.4 Current Solid Waste Characterization

The secondary treatment train typically processes the following by-products generated from the main treatment train: dissolved solids (inorganic metals/salts) removed from the reverse osmosis unit operation, suspended solids from filter backwash, and regeneration waste from the ion exchange system. These contaminants are dried to a powder. The primary constituents in the powder depend on the wastewater being treated. Typically the powder is made up of one or more of the compounds, sodium sulfate, calcium sulfate, sodium nitrate, sodium chloride, ammonium sulfate, and trace amounts of heavy metals.

2.0 DESCRIPTION OF PROPOSED MODIFICATIONS (STU)

2.1 Reason for Modification

Operation of the ETF thin-film dryer has been problematic in the past. Groundwater and other feed streams that differ significantly in composition from that identified in the dryer design specification have caused problems. Feed streams outside the design specification coupled with variation in feed density resulted in hard material buildup on the internals of the dryer. The material buildup eventually caused failure of the rotor blades, and frequent maintenance has been required. Design of the thin-film dryer operation has provided less than adequate contamination control and increased personnel exposure.

Disposal of solid waste in powder form has also become problematic. In the past, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) powder drums were wetted prior to disposal at the Environmental Restoration Disposal Facility (ERDF) to prevent the powder from going airborne when the drums are disposed of by crushing. Because of the variability in the amount of water needed to wet the drums adequately, this practice became unacceptable. Not enough water added to the drums caused airborne concerns, and too much water caused free liquid that is unacceptable for disposal.

One option to address the airborne concern is to dispose of the drums within structural vaults that will be constructed in the ERDF disposal cells, whereby there would no longer be a requirement to add water to the drums. However, this method is expensive. A second

alternative is for ERDF to run a grouting mixer and grout the powder. The powder drums would again be wetted prior to shipment to ERDF to avoid airborne issues when emptying the drums in the grout mixer, but excess water would be acceptable. This alternative is only an interim measure until the ETF has the ability to grout secondary waste, since grouting powder drums at ERDF is labor intensive and exposes workers to additional hazards.

Criteria for disposal of RCRA powder drums at the Mixed Waste Trench have also changed over the past year. In the past, the only reasons for monolithing containers were for RCRA macroencapsulation or Category III RAD stabilization. The Mixed Waste Trench recently instituted a pound-per-square-inch (psi) requirement for wastes disposed in the Mixed Waste Trench. The purpose of the psi requirement is to ensure safe use of the crane when it is operating on a waste layer. Monolithing, which is an expensive process, will likely be required for significantly more powder drums than in the past because of problems passing void space verification tests as the powder settles in the drums.

For these reasons an alternative technology is needed to process the evaporator brine concentrate to a waste form suitable for disposal. The STU project provides a cement-based stabilization method that meets progressively stringent disposal criteria. Cement-based stabilization converts the hazardous waste into their least soluble, mobile, or toxic forms.

2.1 Overall Effects of the Unit on the Facility and Other Units it Impacts

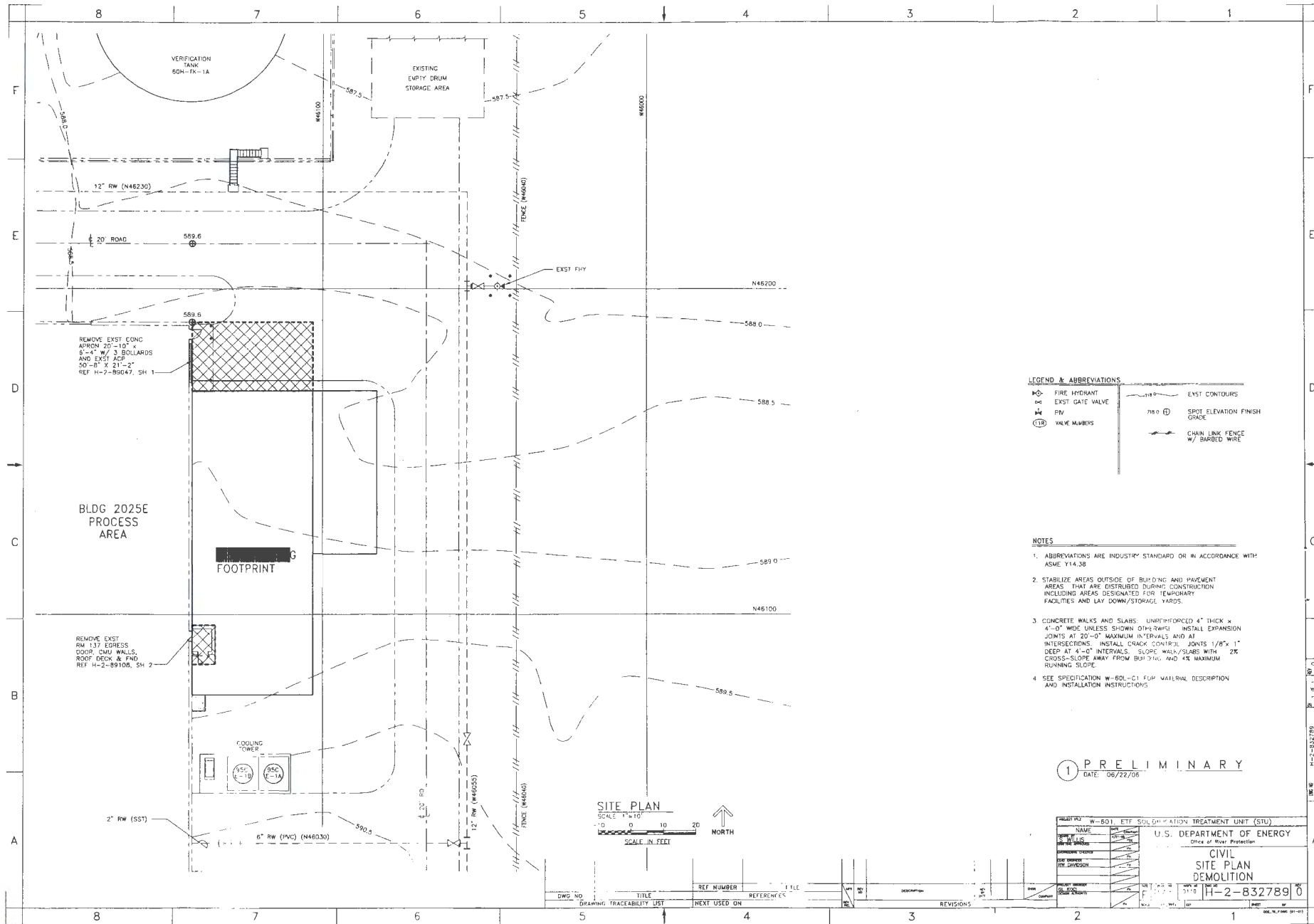
The STU will be the last unit operation of the ETF secondary treatment train and will supplement the existing thin film dryer. The STU will not impact other ETF unit operations. STU will tie-in to existing ETF utilities (e.g., instrument air, chilled water) that have spare capacity. STU will have its own HVAC system, separate from the ETF HVAC system. Verification water from the ETF will be used as rinse water in the STU and sent back to the head end of the ETF for treatment. The rinse water will be a small volume and will not effect the overall capacity of the ETF to treat other waste waters.

2.2 Changes/Modifications Required in the Facility to Support the STU

No changes/modifications to the existing ETF are necessary other than tie-ins to utilities and process piping tie-ins to STU. STU will be an annex to the existing ETF building.

2.3 Timetable for Final Design and Construction

Final design of STU is schedule to be completed by 2/2/2007 with construction to start in May of 2007. Construction is scheduled to be completed in January of 2008.



LEGEND & ABBREVIATIONS

	FIRE HYDRANT		EXIST CONTOURS
	EXIST GATE VALVE		SPOT ELEVATION FINISH
	FHY		CHAIN LINK FENCE W/ BARBED WIRE
	VALVE NUMBERS		

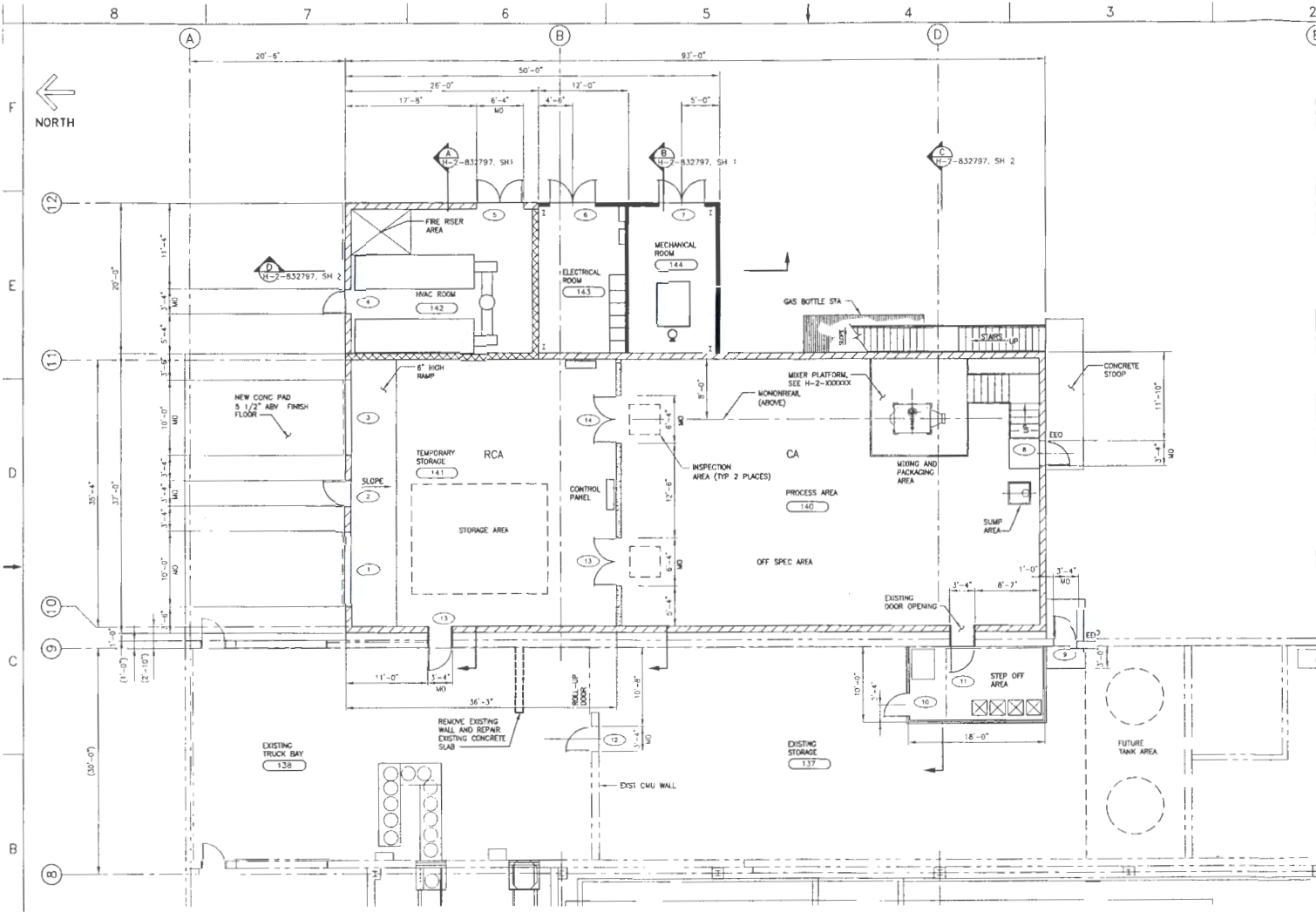
- NOTES**
- ABBREVIATIONS ARE INDUSTRY STANDARD OR IN ACCORDANCE WITH ASME Y14.38
 - STABILIZE AREAS OUTSIDE OF BUILDING AND PAVEMENT AREAS THAT ARE DISTURBED DURING CONSTRUCTION INCLUDING AREAS DESIGNATED FOR TEMPORARY FACILITIES AND LAY DOWN/STORAGE YARDS.
 - CONCRETE WALKS AND SLABS: UNREINFORCED 4" THICK x 4'-0" WIDE UNLESS SHOWN OTHERWISE. INSTALL EXPANSION JOINTS AT 20'-0" MAXIMUM INTERVALS AND AT INTERSECTIONS. INSTALL CRACK CONTROL JOINTS 1/8" x 1" DEEP AT 4'-0" INTERVALS. SLOPE WALK/SLABS WITH 2% CROSS-SLOPE AWAY FROM BUILDING AND 4% MAXIMUM RUNNING SLOPE.
 - SEE SPECIFICATION W-60L-C1 FOR MATERIAL DESCRIPTION AND INSTALLATION INSTRUCTIONS.

PRELIMINARY
DATE: 06/22/06

SITE PLAN
SCALE: 1"=10'
SCALE IN FEET
NORTH

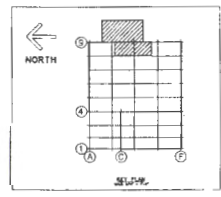
PROJECT NAME: W-60L ETP SOLIDIFICATION TREATMENT UNIT (STU)	
DATE: 06/22/06	U.S. DEPARTMENT OF ENERGY Office of Risk Protection
CIVIL SITE PLAN DEMOLITION	
DWG NO: H-2-832789	REV: 0

DWG NO.	TITLE	REF NUMBER	REFERENCE	DATE	DESCRIPTION	BY	CHKD
	DRAWING TRACEABILITY LIST		NEXT USED ON				
					REVISIONS		



- WALL LEGEND**
- METAL STUDS @ 16" C
W/ 5/8" CMU BOTH SIDES
 - INSULATED (R19)
FLT-UP
CONCRETE WALL
 - INSULATED (R-19) FLT
CONCRETE WALL
(2-HR FIRE RATED)
 - 8" PRECAST CONCRETE
PANEL
 - METAL PANEL W/ INSUL
(R-19) & INTERIOR ME
LINER

- ABBREVIATIONS**
- CMU CONCRETE MASONRY UNIT
 - EEO EMERGENCY EXIT ONLY
 - WO MASONRY OPENING



FIRST FLOOR PLAN
SCALE: 3/16"=1'-0"
FINISHED FLOOR EL. = 0'-0" (JWO)

5 PRELIMINARY
DATE: 7/31/06

PROJECT NO. W-511-ETP		SOLIDIFICATION TREATMENT UNIT (STU)	
NAME		U.S. DEPARTMENT OF ENERGY	
DATE		Regional Operations Office	
CONTRACT NO.		ARCHITECTURAL	
DRAWING NO.		FIRST FLOOR PLAN	
DESIGNED BY	2025E	DATE	0800
DRAWN BY		PROJECT NO.	W-511-ETP
CHECKED BY		DRAWING NO.	H-2-832795-0
DATE		SCALE	
BY		PLotted	

DWG NO.	TITLE	REF NUMBER	TITLE	DATE	REVISIONS
	DRAWING TRACEABILITY LIST		NEXT USED ON		

LIQUID PROCESSING AND CAPSULE STORAGE
Project Managers Meeting
825 Jadwin/Room 590A
Hanford, Washington

January 18, 2007

Attendance List

Name	Organization	Phone Number
Kathy Knox	Knox Court Reporting	946-5535
Pamela Dixon	FH/EP/EFS	376-7053
Kathy Conaway	ECU	372-7890
Oscar M. Holgado	DOE-RL	373-0589
Jennifer Nuzum	FH/EP	373-7185
Steve Szendre	Ecology	372-7911
Darlene Engel	FH/EP	373-0431
Tony McKARNS	DOE	376-8981
Telecom:		
Jen Simmons	FH/EP	